

Week 2: Evolution

The goal of this week is to provide an overview of evolution, especially as it relates to psychology. On the spectrum from “very dense” to “easy review of mostly familiar information” your experience with this reading will vary depending on your background with evolutionary biology and psychology. However, by the time you work through the material (either quickly or slowly), you should have sufficient evolutionary psychology background for the rest of the readings in the course.

(A) This Guide

Your first reading each week will be a Reading Guide. The length and content of these will vary, but one generally consistent feature is that I will start with a brief note describing the author(s) of each reading. You might wonder why I include information about the authors, given that I agree with the following statement: “It should not matter who the author is! All that matters is the quality of the evidence and arguments they put forward!”

I intend the author bios to (a) emphasize that these readings were written by *someone* (i.e., by a fallible human beings who might be wrong), (b) draw attention to which person wrote it, because sometimes knowing about an argument someone makes in one paper helps you to understand an argument they make in another (a connection you can only draw if you know the name!), (c) draw attention to which person wrote it, because knowing that allows you to recognize the name when someone *else* refers to them and their work (e.g., “In contrast with Haidt, I will claim that...”), (d) knowing the background of the people who did the research (e.g., “what a very international collaboration that was!” or “I see how a background in mathematics would help a biologist come up with these arguments!”) is a small but important part of understanding how the research is produced.

(B) Evolutionary Psychology: A Primer

<http://www.cep.ucsb.edu/primer.html>

Leda Cosmides is a psychologist and John Tooby is an anthropologist. They both work at UC Santa Barbara where they co-founded the Center for Evolutionary Psychology, they are both founders of the field of evolutionary psychology, and they are married to each other.

This primer is quite old (1997), but is still a standard reference for an introduction to applying evolutionary thinking to psychology. There are many key concepts to pay attention to, many of which might be new to you. I want to draw special attention to concepts which may **seem** familiar to you, but which can actually be quite counterintuitive. This includes nature, nurture, innateness, and heritability. See, for example, “more nature allows more nurture,” and “innate is not the opposite of learned,” and “[heritability] tells you nothing about what caused the development of an *individual*.”

Week 3: Morality

The goal of this week is to provide an overview of moral philosophy. Unlike the rest of the semester, which is focused on the descriptive domain (e.g., “what DO people think is morally right and morally wrong?” and “how DO people behave?”), this week is focused on the normative domain (e.g., “how OUGHT people behave?”).

(A) This Guide

(B) The Elements of Moral Philosophy

James Rachels (1941-2003) was a philosopher who worked at many schools, most notably a quarter century at University of Alabama at Birmingham. He is most famous for this book, though his career included many publications and books on a wide range of ethical issues.

I like this book: I encourage you to read the entire book several times each year for the rest of your life. But, more realistically, you might want to know which segments are most relevant for this course.

The most important chapters for this course are:

Chapter 2 (The Challenge of Cultural Relativism)

This chapter directly relates to many discussions we will have about empirical facts about diversity in moral judgment/behavior. Do these empirical facts mean that there is no truth about what is actually right and wrong?

Chapters 7 to 11 (Utilitarianism, Deontology, Contractarianism)

Utilitarianism and Deontology are two major ethical theories to which moral psychologists make regular reference. Contractarianism is not always referred to by name, but underlies many analyses of cooperation.

Depending on your interests, other chapters may be highly relevant. Most notably, we will definitely discuss the Euthyphro Dilemma from Chapter 4 (Does Morality Depend on Religion) and the fundamentally different questions of “What is the right thing to do?” versus “What traits of character make one a good person?” from Chapter 13 (The Ethics of Virtue).

Week 4: Three Example Approaches

What exactly is moral psychology? Good question, and I wish I knew the answer! This week, the three required readings (B, C, and D) provide three example approaches. Before you read them, however, here is a potentially helpful framework provided in a 2015 paper “The Rise of Moral Cognition” by Josh Greene:

“I believe that moral cognition is not a natural kind at the cognitive level. By way of analogy, consider the concept VEHICLE. At a mechanical level, vehicles are extremely variable and not at all distinct from other things. A motorcycle, for example, has more in common with a lawn mower than with a sailboat, and a sailboat has more in common with a kite than with a motor cycle. One might conclude from this that the concept VEHICLE is therefore meaningless, but that would be mistaken. Vehicles are bound together, not at the mechanical level, but at the functional level. I believe that the same is true of morality.”

(A) This Guide

(B) Haidt (2008). *Morality. Perspectives on Psychological Science.*

Jonathan Haidt is Professor of Ethical Leadership at NYU’s Stern School of Business, though for many years he was in the psychology department at University of Virginia. He is known for a wide range of work in positive psychology and moral psychology, most notably moral dumbfounding and the moral foundations theory.

In this paper, he provides a historical overview of moral psychology and an argument for where it might fruitfully go in the future. Not that, like all of the articles this week, this one is making an argument for how we should think about the scope of moral psychology, so you should read it critically to evaluate this claim (not just learn that the claim exists).

(C) Gray et al. (2014). *The Myth of Harmless Wrongs in Moral Cognition: Automatic Dyadic Completion from Sin to Suffering. JEP:G.*

Kurt Gray is an assistant professor of psychology at UNC, Chapel Hill. Chelsea Schein is one of his PhD students. Adrian F. Ward was a postdoc at University of Colorado, Boulder when this was published, but is now an assistant professor at UT Austin.

In this paper, they suggest that morality and harm are very tightly connected—perceiving a moral violation means perceiving that a wrongdoing agent causing harm to a suffering patient. Quite the contrast with reading (B)! This is the first reading we have with experimental data and statistics (p-values, etc.), so we will go over some features of this in class. If you get lost in your own reading, just keep in mind that the critical ideas they are trying to test are in the left column of page 3.

(D) Rand et al. (2012). *Spontaneous Giving and Calculated Greed. Nature.*

David G. Rand is an associate professor of psychology at Yale University. Martin Nowak is a professor of biology and mathematics at Harvard, and was Rand's dissertation advisor. Joshua Greene is a professor of psychology at Harvard, though his PhD is in philosophy.

In this paper, the authors discuss results from studies in which intuitive responses are cooperative and deliberative decisions are more selfish. These results relate to a huge literature on fast/slow "dual-process" theories in many areas of cognitive science.

(REC) Greene (2008). The Secret Joke of Kant's Soul. *Book Chapter*. (SPEC) Rand et al. (2012) Supplementary online materials

(B) Kurzban et al. (2015). The Evolution of Altruism in Humans. *Annual Review of Psychology*.

Robert Kurzban is a professor of psychology at University of Pennsylvania (he received his PhD at UC Santa Barbara, working with Leda Cosmides and John Tooby). Maxwell N. Burton-Chellow is a postdoc working with the third author, Stuart A. West, an evolutionary biologist at Oxford.

In this review paper, the authors cover a lot of the foundational concepts (e.g., Hamilton's Rule) and also point to areas of current research (e.g., punishment).

(C) Hammerstein & Nöe (2016). Biological trade and markets. *Phil. Trans. B*

Peter Hammerstein is Professor of Organismic Evolution at the Institute for Theoretical Biology at Humboldt University in Berlin. Ronald Noë is originally from the Netherlands, but has been a psychology professor at Strasbourg University in France since 1998.

This paper contains concrete examples of some of the ideas presented in the above reading. Whereas discussions of the potential foundations of human morality in capacities shared with nonhumans often focus on nonhuman primates, this reading covers mechanisms that govern "behavior" even in plants and fungus! (e.g., "Trading minerals for carbohydrates—mutualistic interaction of fungi with the roots of vascular plants in mycorrhizal symbiosis. While receiving carbohydrates from the roots, the fungi provide minerals in return. They convert demineralized phosphorus and make it available for uptake by their plant hosts").

(D) Debove et al. (2015). Evolution of equal division among unequal partners. *Evolution*.

Stéphane Debove just finished his PhD at Ecole Normale Supérieure (Paris) and is now president of a non-profit organization that communicates scientific results to the public. Nicolas Baumard is co-lead of the Evolution and Social Cognition Group at ENS (and was my postdoc supervisor 2013-2015). Jean-Baptiste André is a research fellow in the Human Evolutionary Biology group at Montpellier.

This reading is a recent example of a paper that does evolutionary modeling. These can be quite intimidating if you have never seen them before, since they include novel symbols put together in complicated equations, and then results that you literally cannot derive yourself from the equations, since they can only be done by powerful computers running simulations for hours (or longer!). You should read through this slowly (and some sections repeatedly), and try to make it as far through the math as you can, but do not be concerned if some parts remain opaque. Note especially Figure 1 and the paragraph #2 of the discussion, spanning pages 5-6.

(SPEC) West et al. (2008). Social semantics: how useful has group selection been? *Journal of Evolutionary Biology*.

Stuart West is an evolutionary biologist, now at Oxford University. His co-author Ashleigh Griffin is also now at Oxford, and Andy Gardner is now at University of St. Andrews.

This is West's second most-cited paper, with almost 1k citations. In it, he and his colleagues make counterarguments against D.S. Wilson (one of a few people who champion group-level selection). Specifically, they argue that "At one level, kin selection and group selection are just different ways of doing the maths or conceptualizing the evolutionary process. However, from a practical point of view, it could not be clearer that the kin selection approach is the more broadly applicable tool that we can use to understand the natural world." For a particularly snarky presentation of this argument, see Table 2, in which every value is "KS" (and none are "GS").

Week 6: Origins

(A) This Guide

(B) Hamlin et al. (2007). Social evaluation by preverbal infants. *Nature*.

Kiley Hamlin is a psychology professor at University of British Columbia, but this work is from when she was a PhD student here at Yale with psychologists Paul Bloom and Karen Wynn.

Hamlin continuously produces ground-breaking work on social evaluation in infants, and this particular paper (from nearly a decade ago at this point!) was truly astonishing when it was published. However, more recent work establishes even more astonishing cases of infant social evaluation. I'll probably mention some of the more recent results in class, but this reading provides the appropriate foundations (in terms of both initial results and understanding the general design of this type of infant study).

(C) Warneken & Tomasello (2006). Altruistic helping in human infants and young chimpanzees. *Science*.

Felix Warneken is a psychology professor at Harvard, but this work is from when he was a PhD student at Max Planck Institute for Evolutionary Anthropology (in Germany) with Michael Tomasello.

Whereas Hamlin's paper was groundbreaking in showing early *evaluation* in *infants*, this paper was groundbreaking showing early helping *behavior* in *young children*. Like Hamlin's paper, this paper has likewise served as the foundation for a giant research program. It is worth watching the "cabinet" video at: <https://software.rc.fas.harvard.edu/lds/research/warneken/video-clips/>

(D) Powers et al. (2016). How institutions shaped the last major evolutionary transition to large-scale human societies. *Phil. Trans. B*.

Simon T. Powers has a background in computer science and mathematics, which he applies to evolution as a Lecturer in the Department of Ecology and Evolution at Université de Lausanne (Switzerland). His co-author Laurent Lehmann is in the same department, and Carel P. van Schaik is an anthropologist at University of Zürich.

In this paper, the authors try to "explain the transition from primate social organization based on kinship and personal exchange to human societies with large-scale impersonal exchange and division of labour between unrelated individuals." My intention in including this reading is to focus attention on the question of which aspects of modern human behavior may be unique not just to humans, but to humans in the past several thousand years (i.e., due to cultural change rather than genetic change).

(E) Sheskin et al. (2014). Life-history theory explains childhood moral development. *Trends in Cognitive Sciences*.

You may have noticed I'm at Yale now, in the Cognitive Science program, but this work is from my previous position in Paris, working with Cognitive Science professors Nicolas Baumard and Coralie Chevallier, and their PhD student Stéphane Lambert.

This paper provides a proposal for how to think about moral development. Note that "Life-history theory" is a bit of misleading jargon that does NOT mean what the words seem to mean. A very brief summary of the overall claim:

The increase in prosocial motivation over childhood may be like the emergence of adult/permanent teeth: having adult teeth in a 3-year-old would be bad for survival, and having adult levels of prosocial motivation in a 3-year-old would likewise be bad for survival. Why might high levels of prosocial motivation be beneficial for adults but harmful for young children? A good moral reputation is important for gaining interaction partners for mutually-beneficial cooperative activities. Benefits gained in cooperative activities are important for adults but much less important for children (who are provisioned by adult care-givers). Thus, for young children, the costs of being prosocial are not paid back from benefits gained from cooperation (to say nothing of the fact that a 3-year-old is useless in most cooperative tasks and so not included regardless of moral reputation!).

More generally, just as our physical maturation follows a roughly standard timeline that has been tuned by natural selection, so too might various aspects of our cognitive maturation follow a roughly standard timeline that has been tuned by natural selection. Note that this does not demand an exactly identical timeline for each person: there is interesting research about how the environment can lead to individual differences, including ways in which the evolved system might be "designed" to respond flexibly to environmental variation.

Week 7: Cross-Cultural Universals and Variation

This week, we will discuss which features of moral psychology seem to be universal, which seem to vary, and whether there is any systematic explanation for why cultures might vary as they do. Please note the absolutely critical sentence in the last required reading “Only long-abandoned instinct-as-reflex theories expect invariant responses in the face of different social inputs. By contrast, modern adaptationist theories predict that our evolved social psychology will be calibrated by relevant environmental inputs.”

(A) This Guide

(B) Mid-Term Summary

I tried to summarize what I saw as the most important parts of each week, limiting the entire document to one page. In your reading response, you might mention which things I have embarrassingly overlooked, that you thought were quite important!

(C) Nettle & Bateson (2015). Adaptive developmental plasticity: what is it, how can we recognize it and when can it evolve? *Proc. R. Soc. B.*

Daniel Nettle is Professor of Behavioral Science and Melisa Bateson is Professor of Ethology, both at Newcastle University in the UK.

The word “culture” does not appear in this paper. This paper serves as background for thinking critically about sources of population variation you will learn about, especially in reading E. Although learning from the adults in your culture is no doubt part of the story, adaptive developmental plasticity may also be a large part of variation across populations.

(D) Graham et al. (2016). Cultural differences in moral judgment and behavior, across and within societies. *Current Opinion in Psychology.*

Jesse Graham received his PhD at University of Virginia, working with psychologists Jonathan Haidt and Brian A. Nosek. Before that, he received a Masters in Theological Studies at Harvard, and he is now a psychology professor at University of Southern California. The other authors are PhD students with him.

There is much to recommend in this paper, though it does not integrate the sort of arguments in the required and recommended Nettle readings as much as it might. As you read through this paper, note that the references with dots have additional information in the references section.

(E) Henrich et al. (2010). Markets, religion, community size, and the evolution of fairness and punishment

Joseph Henrich is an anthropologist who was at University of British Columbia for many years (including when this paper was published), but who moved recently to Harvard. He has been the lead author on several papers in which a LOT of people have collaborated to look at how behavior varies across many diverse populations.

In this paper, the authors investigate how norms and institutions (remember the Powers paper from last week!) co-vary with decisions in behavioral economics games. I am a huge fan of Figure 1 (though my favored explanation for the correlation is not identical to theirs!)

(F) Two Commentaries on the Previous Paper, and a Reply from the Authors

Note especially the line I indicate at the top of this document.

Week 8: Groups

(A) This Guide

(B) Cosmides et al. (2003). Perceptions of race. *TiCS*. (6 pages of text)

We have met all of these authors before: Cosmides and Tooby from the “Evolutionary Psychology Primer,” and Kurzban from “The Evolution of Altruism in Humans.”

This review article provides the theoretical background for this week. It suggests that the way we think about groups is a product of a mechanism for tracking cooperative coalitions in our environment. In an environment such as the United States, this typically results in people perceiving racial categories and thinking those categories have predictive content. Note that the boxes are essential for understanding their arguments in the main text, and that this article is essential background for the next required reading.

(C) Pietraszewski et al. (2014) The Content of Our Cooperation, Not the Color of Our Skin: An Alliance Detection System Regulates Categorization by Coalition and Race, but Not Sex. *PLoS ONE*. (18 pages of text)

Dave Pietraszewski got his PhD at Santa Barbara, working with Cosmides and Tooby, was then a postdoctoral researcher at Yale, and is now at the Max Planck Institute for Human Development in Berlin.

This is an empirical paper that investigates and extends several of the ideas in reading (B). Note especially that alliances did not need to be marked by any perceptually salient cues or competition—indicators of peaceful collaboration suffice. Note also the theoretical importance of how their manipulations affected categorization by race but *not* categorization by sex. Finally, note the implications of these results: Pietraszewski and colleagues argue that the extent to which we categorize people according to race is influenced by whether race is a reliable predictor of social alliances and divisions: if we lived in a society in which race did not predict who cooperated with whom, we would categorize according to race either much less or not at all.

(D) Greenwald & Pettigrew (2014). With malice toward none and charity for some: Ingroup favoritism enables discrimination. *American Psychologist*. (12 pages of text)

Anthony G. Greenwald is currently at University of Washington (Yale BA, 1959), and is well known for being one of the three co-founders of Project Implicit. Thomas F. Pettigrew is retired from UC Santa Cruz, but, after an insanely productive career focused on racial prejudice, reflected (in 2009) that “I’ve published more in the last 10 years than any decade of my life.” Both authors are former students of Gordon Allport (e.g., *The Nature of Prejudice*, 1959).

In this paper, Greenwald & Pettigrew argue that “ingroup favoritism is plausibly more significant as a basis for discrimination in contemporary American society than is outgroup-directed hostility.” I have included this paper for several reasons, including not just the importance of considering its main thesis (and its relationships to the two previous readings), but also because it

provides a good overview of several other important ideas (e.g., “The Minimal Group Paradigm” and “System Justification Theory”).

(E) Richerson et al. (2016). Cultural group selection plays an essential role in explaining human cooperation: a sketch of the evidence (14 pages of text)

There are a lot of authors on this paper, and page 2 of the pdf (optional reading) has a bio paragraph for each.

This is a target BBS article laying out the main ideas of cultural group selection and the evidence for it. One of the optional readings for this week is the full PDF, which includes responses from very many researchers and a reply to those responses by these authors.

(F) Two commentaries on the above. (4 pages of text)

I've selected two of the commentaries for everyone to read. If you also do the optional reading that contains all of the commentaries, you will find these two.

Week 9: Groups

Earlier this semester, we read a 2015 review of “The Evolution of Altruism in Humans” in which Kurzban and colleagues highlight three current debates, one of which is punishment. They say: “... debates continue surrounding the empirical work in this literature. Why is there “perverse” punishment, harming those who have cooperated? If punishment evolved for stabilizing cooperation, then why does punishment often lead to worse, rather than better, outcomes in aggregate (Dreber et al. 2008)? If people have a “taste” for punishment, then why does punishment decrease under conditions of anonymity (Kurzban et al. 2007)? How much of punishment observed in the lab is due to demand characteristics (Pedersen et al. 2013)? How much punishment is better understood as revenge as opposed to moralistic enforcement (McCullough et al. 2013)?”

(A) This Guide

(B) Pedersen et al. (2013). Do humans *really* punish altruistically? A closer look. *Proc. Royal Soc. B*.

Eric J. Pedersen is a graduate student in Michael E. McCullough’s Evolution and Human Behavior Laboratory at University of Miami. Robert Kurzban is in the psychology department at University of Pennsylvania, and is the lead author on the paper I quoted above.

In this paper, they argue that many claims of evidence for altruistic punishment are “experimental artefacts” and that witnesses of unfairness may be more motivated by *envy* of a cheater’s success than of moral outrage.

(C) Krasnow et al. (2016). Looking under the hood of third-party punishment reveals design for personal benefit.

Max Krasnow got his PhD working with Tooby and Cosmides at UC Santa Barbara, and is now an assistant professor in Harvard’s Psychology Department. Likewise, Andrew W. Delton was a PhD student with Tooby and Cosmides before joining the business school at Stony Brook.

In this paper, the authors conduct studies to support the conclusion that punishment exists NOT to “maintain a cooperative society” but instead to “defend personal interests.”

(D) Fehr & Gächter (2002). Altruistic punishment in humans. *Nature*.

Ernst Fehr is originally from Austria, and is currently in the Department of Economics at University of Zürich in Switzerland. Simon Gächter is also originally from Austria, and is currently a professor of Psychology and Economic Decision Making at University of Nottingham in the UK.

In this paper, they empirically demonstrate the importance of punishment for sustaining cooperation in a Public Goods Game (see especially Figure 2). Note that this paper presents the

type of argument that readings (B) and (C) are arguing against. In class, we will be discussing the extent to which both sides are convincing.

(E) Greene & Cohen (2004). For the law, neuroscience changes nothing and everything. *Phil. Trans. R. Soc. Lond. B.*

We previously met Joshua Greene in the Week 4 reading guide, where I quoted his example of “morality” being a “functional” concept and we discussed natural vs. artificial kinds. Greene is a professor in Harvard’s Psychology department. This paper was written shortly after Greene received his PhD in philosophy, and when he was a postdoctoral researcher with Jonathan Cohen in Princeton’s psychology department.

The argument they make in this paper is complicated, and touches on many deep philosophical questions (free will, the moral justification for punishment, etc.). There is a section midway through that might be helpful to focus on to understand their argument. On page 1778, you will find “In our opinion, the ‘fundamental psycholegal error’ is not so much an error as a reflection of the gap between what the law officially cares about and what people really care about. In modern criminal law, there has been a long tense marriage of convenience between compatibilist legal principles and libertarian moral intuitions. New neuroscience, we argue, will probably render this marriage unworkable.”

Week 10: Emotions

The first required reading this week suggests that, to make real progress on the relationship between emotion and morality, we need to break up these convenient high-level terms into their real component parts. This should remind you of the “natural and artificial kinds” discussion we had when we discussed the reading guide for week 4. The reading this week also foreshadows a reading we will do in Week 12 (Religion) that applies a similar analysis to the relationship between religion and morality.

(A) This Guide

(B) Cameron et al. (2015). A constructionist review of morality and emotions: no evidence for specific links between moral content and discrete emotions. *Personality and Social Psychology Review*.

C. Daryl Cameron is a psychologist at University of Iowa, and Kristen A. Lindquist and Kurt Gray are both in psychology at UNC Chapel Hill.

If you were taking this class 15 years ago, we would likely spend a lot of time talking about the CAD Triad hypothesis, which suggests there are three types of moral violations (against community, autonomy, and divinity—these later were further subdivided into Haidt’s famous five domains) and that each violation elicits an emotional reaction with a corresponding initial letter (contempt, anger, disgust). This paper suggests that no such one-to-one mapping exists, but that there ARE interesting relationships between emotion and morality when we properly subdivide each.

(C) Cikara (2015). Intergroup schadenfreude: motivating participation in collective violence. *Current Opinion in Behavioral Sciences*.

Mina Cikara leads the Intergroup Neuroscience Lab at Harvard, and will be giving a talk here at Yale on November 28th (<http://cogsci.yale.edu/calendar/grid/month>)

The content of this paper relates strongly to our previous week on Groups, and to more general themes throughout the semester about our moral psychology being broader than just happy prosocial behavior.

(D) Bloom (2014). Against Empathy. *Boston Review*.

Paul Bloom is in psychology here at Yale, and was Chair of Cognitive Science last year. This article is one example of his recent arguments against empathy. As you are reading it, consider what role empathy may have played in the EEA (recall Week 2, with the Evolutionary Psychology Primer), and whether it is playing the same role in our lives.

(REC and SPEC Papers)

Note especially the REC one, which talks about dual-process theories.

Week 11: Charity

There have been a few weeks where the suggested reading order started with empirical papers/results and then moved into a philosophical discussion (e.g., the Greene & Cohen paper at the end of the punishment week). This week, I am suggesting the reverse order. The first reading is the most philosophical, and the two others are more specific empirical results you might consider in light of the first reading.

A special note about the optional readings: if we were earlier in the semester, they would be required readings. However, at this point in the semester, we have seen enough of the background ideas that link “charity” to “evolution of morality” that we can skip the basic articles and leave room for reading more specialized empirical results. Nevertheless, I encourage looking at the optional articles—especially if you want some additional background on the link!

(A) This Guide

(B) MacFarquhar (2015). *Strangers Drowning. Book Excerpt.*

Larissa MacFarquhar is a staff writer at *The New Yorker* and has profiled a ton of famous people including Barack Obama and Noam Chomsky. This reading is an excerpt from her recent book, and she was on campus last year (hosted by Cognitive Science) to talk about this book.

This reading invites you to consider what the proper level of charity *should* be—most people think it is not infinite, due to (e.g.,) special duties we have to those who are close to us. It also invites you to consider how charity efforts should be directed, especially regarding arguments about “Effective Altruism.” I want to draw your attention especially to Ben K.’s quote on page 92, in which he talks about getting your “fuzzies” and your “utilons” separately.

(C) Powell et al. (2012). *Eye Images Increase Charitable Donations: Evidence From an Opportunistic Field Experiment in a Supermarket. Ethology.*

Lead author Kate L. Powell was an undergraduate working with Gilbert Roberts and Daniel Nettle at Newcastle in the UK. In this paper, the authors follow up on recent papers showing that “eye images” increase prosocial behavior, and find specific evidence for “the evolution of prosociality through reputation-based partner choice.” Note especially Figure 2 (every dark bar higher than its paired light bar) and Figure 3 (interaction with how busy the checkout was).

(D) Olivola & Shafir (2013). *The Martyrdom Effect: When Pain and Effort Increase Prosocial Contributions. Journal of Behavior Decision Making.*

Christopher Y. Olivola is currently at Carnegie Mellon, but wrote this paper during his time as a postdoc at Warwick in the UK. Before that, he did a joint PhD in psychology and public policy at Princeton, which is (I assume) where he met Eldar Shafir. If you have never heard of Shafir, he is worth looking up—a VERY big name! In this paper, they look at when high costs *increase* prosocial donations. See especially the final two studies.

Week 12: Religion

Is religion necessary for being a good person? Or, at the very least, does religion make people more moral? Alternatively, is religion a barrier to moral behavior? There is active debate about these questions in both popular culture and in empirical research. However, one important starting point in discussing evolution of religion and morality is that the debates are *not* (or at least need not be) “science vs. religion.” This is especially clear when considering that some of the most important researchers are themselves religious. Here is an example from a 2007 article in the New York Times Magazine (link: goo.gl/GpqJqg)

...one prominent member of the byproduct camp, Justin Barrett, is an observant Christian who believes in “an all-knowing, all-powerful, perfectly good God who brought the universe into being,” [He says:] “I believe that the purpose for people is to love God and love each other.”

At first blush, Barrett’s faith might seem confusing. How does his view of God as a byproduct of our mental architecture coexist with his Christianity? Why doesn’t the byproduct theory turn him into a skeptic?

“Christian theology teaches that people were crafted by God to be in a loving relationship with him and other people,” Barrett wrote in his e-mail message. “Why wouldn’t God, then, design us in such a way as to find belief in divinity quite natural?” Having a scientific explanation for mental phenomena does not mean we should stop believing in them, he wrote. “Suppose science produces a convincing account for why I think my wife loves me — should I then stop believing that she does?”

(A) This Guide

(B) McKay & Whitehouse (2015). Religion and Morality. *Psychological Bulletin*.

Ryan McKay is a professor of psychology at University of London, and Harvey Whitehouse is chair of Anthropology at Oxford.

In this review article, they argue that “morality” and “religion” are each “umbrella” concepts and that “to make progress, the categories “religion” and “morality” must be fractionated into a set of biologically and psychologically cogent traits, revealing the cognitive foundations that shape and constrain relevant cultural variants.”

(C) Bloom (2012). Religion, Morality, Evolution. *Annual Review of Psychology*.

We last saw Bloom in the Emotions week, unless he’s walked by our seminar on his way to his office in the last few minutes.

In this review article, Bloom concludes that “religion has powerfully good moral effects and powerfully bad moral effects, but these are due to aspects of religion that are shared by other

human practices. There is surprisingly little evidence for a moral effect of specifically religious beliefs.”

(D) Baumard et al. (2015). Increased Affluence Explains the Emergence of Ascetic Wisdoms and Moralizing Religions. *Current Biology*.

We’ve seen Baumard as a co-author on Debove’s modeling paper (Week 5) and my life-history paper (Week 6). Alexandre Hyafil is a neuroscientist who recently moved to a postdoc at Universitat Pompeu Fabra (Barcelona), Ian Morris is in the Department of Classics and a member of the Archaeology Center at Stanford, and Pascal Boyer is an anthropologist who specializes in the cognitive science of religion and is currently at Washington University in St. Louis.

In contrast with the two other required readings this week (both large review articles), this is a recent empirical paper making a new (and tentative) claim.

(REC) Norenzayan et al. (2016). The cultural evolution of prosocial religions. *BBS*.

I strongly considered replacing all of the above readings with this one reading: a target article in *BBS*, commentaries from a wide variety of researchers (including many of the ones in the required readings), and a response from the authors of the target article.

If you are very interested in this week’s topic, then I highly suggest you read this debate/discussion article for some of the most recent thinking on this topic. (Also, if you do choose to read it, do you think I should replace the above readings with this next time I teach this course?)

Week 13: Capstone

In addition to the typical Part B update (on the Religion week), you will have a Part A this week based on readings that YOU select. Here is the process for the remainder of the semester:

- (1) Choose two papers from earlier in the semester. These should be papers that (a) you found difficult and (b) you think might be elucidated by content from later in the semester.
- (2) Re-read the two papers more carefully than you did the first time. (Note that you are reading fewer papers this week than a typical week!)
- (3) Your Part A for this week should discuss how your understanding of the two papers has changed since your initial reading of them. How (specifically) did later papers and class discussion shed new light on your second reading of them? What questions do you still have remaining from earlier? What new questions do you have now that you are reflecting on this material with additional insight from other papers? Your Part A might also include wider reflections on the semester unrelated to the two papers you chose.
- (4) Next week we will have a discussion reflecting on the entire semester, informed by the reading responses you send in. You will then submit one final Part B update after class, updating your thoughts on the semester and the readings you re-read, based on the class discussion.

Let me know if you have any questions about this!